RG104 E-1 Box 135 Aug-Sep 1885

Mint of the United States at Philadelphia,
MELTING AND REFINING DEPARTMENT,

Philadelphia, 19 Sept. —, 1885.

Hon. D.M. Fox
Superintendent
Sir,

In relation to the use of Alcohol for cleaning metallic surfaces, I offer the following Remarks: That it is most largely employed to clean the base coin blanks, and that since the recent cessation of such coinage very little is used, and that little on the finer metal surfaces of machinery. The solvent power of the lightest petrolic oils for grease, &c. is rather greater than that of alcohol; but when at its highest, such as benzine, &c. it is also extremely volatile, dangerously so, for a light at almost arm's length. The only substance of this nature that could be used with sufficient efficiency

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and safety would be the lightest burning oils of commerce used for cleansing, and then some benzine (or its equivalent), to remove the traces of heavy oil remaining on a cleansed surface; or a little alcohol might be equally effective for the finish.

The chief advantage of alcohol is, that when used of high strength, it is quite effective enough, and then the simple action of water removes the last traces of it. Water would be ineffective with petroleum compounds.

The above thoughts might be solved with more certainty by direct experiments on a small scale with alcohol, and with petrolic oils, to determine their relative effectiveness, economy & safety.

Very respectfully,
J. A. C. Booth

NARA RG104, Entry 1, Box 135

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The chief advantage of alcohol is, that when used of high strength, it is quite effective enough, and then the simple action of water removes the last traces of it. Water would be ineffective with petroleum compounds.

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